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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,312	09/30/2003	Yehia El-Ibiary	03RE097/YOD REEL:0049	5341

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EXAMINER

COLON SANTANA, EDUARDO

ART UNIT PAPER NUMBER

2837

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/675,312

Applicant(s)

EL-IBIARY ET AL.

Examiner

Eduardo Colon Santana

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Detailed Action.

DETAILED ACTION

1. Applicant's response filed on 7/28/2005 have been received and entered in the case.
2. Applicant's arguments with respect to the rejection(s) of claim(s) 1-7, 17-22, 27-31 and 34-36 under 35 U.S.C. §102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of a newly found prior art reference as discuss below.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 recites the limitation "...the electronic device..." in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

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(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Dowling et al. U.S. Patent No. 6,236,947.

Referring to claim 1, Dowling et al. discloses various embodiments for a motor condition and performance analyzer (see all figures, Summary of Invention and respective portions of the specification). Dowling et al. further discloses a system and method as depicted in figure 1, 6 and 8, wherein programming instructions are stored in a tangible medium (rom/ram) (14, 16) to be executed by processor (12). Processor (12) receives and analyzes signal inputs of current and voltage data, which are represented as a balanced set of phasors¹ with a positive, negative and zero sequence components. Furthermore, Dowling describes that motor efficiency² is calculated using average phasors¹ RMS of current and voltage. See figures 3-8, Columns 15-16, 20-25.

As to claims 2-4, Dowling et al. describes how to determine motor efficiency² based on the balanced set of phasors with a positive and negative sequence (see figure 8 and Col. 24, line 31 to Col. 25, line 63).

Referring to claims 5-7, Dowling et al. describes the input data including input current and input voltage (see Abstract), input power can be derive by well-known formulas using voltage and current. Furthermore, Dowling et al. describes the balanced set of phasors with

¹ A complex number representing the amplitude and phase of a sinusoidal function.

a positive sequence being represented by current and/or voltage signals (see Col. 20, lines 61-67).

As to claims 8-12, Dowling et al. depicts from figures 1-8, a processor (12) being operable to establish a plurality of motor electrical parameters based on the balanced set of phasors with a positive sequence of voltage and current, rotor speed data, electrical resistance and reactance and motor temperature (see Col. 11-25).

Referring to claims 13-16, Dowling et al. further states the use of additional devices to detect motor input voltage, current, frequency, stator resistance, rotor speed and motor temperature (see Col. 12, line 48 to Col. 13, line 7).

As to claims 17-21 and 27-29, the method steps and the means for are inherent in the product structure of claim 1 above, in which Dowling et al. discloses obtaining stator electrical input data and decomposing (demodulating) the stator electrical input data into a balanced set of phasors with a positive and negative sequence. Additionally to establish the efficiency² of the motor Dowling et al. calculates the average phasors¹ RMS of the current and the voltage. See figures 3-8, Columns 15-16, 20-25.

Referring to claim 22, Dowling describes how the output power of the motor is established based on the positive and negative sequence and motor electrical parameters (see Col. 24-25).

As to claims 23-26, Dowling describes that to establish efficiency, motor electrical parameters where used including

² Efficiency = (Output Power / Input Power) x 100%

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resistance, reactance, core loss and leakage reactance (see Col. 24-25).

Referring to claims 30-33 and 34-36, a computer program is inherent in the product structures of claims 1, 2 and 27 as discussed above. Figures 1-8 depicts a processor (12) including memory (14, 16) and method steps (70-182), which are achieved by programming instructions that execute the functions described above related to decomposing electrical data into positive and negative sequence and establishing the efficiency of the motor by calculating the output power using positive and negative sequences and other motor electrical parameters. (See 3-8, Columns 15-16, 20-25).

Response to Arguments

5. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record in form 892 and not specifically relied upon is considered pertinent to applicant's disclosure to further show the state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eduardo Colon Santana whose telephone number is (571) 272-2060. The examiner can normally be reached on Monday thru Thursday 6:30am - 5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Martin can be reached on (571) 272-

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2800 X.37. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ECS
October 17, 2005


MARLON T. FLETCHER
PRIMARY EXAMINER